

REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Office Action mailed December 7, 2010. Claims 1-21 remain in this application. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Interview Summary

Applicants appreciate the courtesy granted to Applicant's attorney, Michael A. Scaturro (Reg. No. 51,356), during a telephonic interview conducted on Friday, February 25, 2010. During the telephonic interview, a proposed amendment to claim 1 was presented to try to clarify differences between the invention and Bruls. The Examiner neither agreed nor disagreed that the proposed amendment would overcome Bruls, but stated instead that the reference would have to be reviewed in light of the newly proposed amendments.

Rejection Under 35 U.S.C. §101

Claims 1-15 stand rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. The rejection is understood to be based on the premise that the rejected claims do not fall within one of the four statutory categories of the invention. More particularly, while the instant claims recite a series of steps or acts to be performed, the claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. Claim 1 has been amended in a manner which is believed to overcome the stated rejection. In particular, claim 1 has been amended to refer to the data carrier as a "non-transitory" data carrier.

Claim Rejections under 35 USC 102

In the Office Action, Claims 1-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application No. 2002/0012530 ("Bruls"). Applicants respectfully traverse this rejection.

Claims 1-21 are allowable

Independent Claim 1 has been amended herein to better define Applicant's invention over Bruls. Claim 1 now recites limitations and/or features which are not disclosed by Bruls. Therefore, the cited portions of Bruls do not anticipate claim 1, because the cited portions of Bruls do not teach every element of claim 1. Claim 1 as amended is reproduced below in clean form:

1. A method of recording multiple sets of broadcasted media data streams and programs on at least one non-transitory data carrier , comprising the steps of:
 - a) receiving in a receiver **said multiple sets of broadcasted media data streams and programs** over one or more data channels at different transmission frequencies,
 - b) **manually programming** one or more program timers indirectly via an EPG or directly for recording certain selected media data streams and programs from among the received multiple sets of broadcasted media data streams and programs to be recorded on the at least one data carrier in a timed recording sequence,
 - c) reading the settings of the one or more programmed program timers including the start and end time of each selected data stream and program,
 - d) calculating the total recording length of all selected data streams and programs from the settings of the one or more program timers,
 - e) determining the available recording space on the at least one data carrier for all unrecorded selected data streams and programs of the timed recording sequence,
 - f) **setting the determined recording quality** for all of said unrecorded selected data streams and programs in the timed recording sequence so as to enable all of said unrecorded selected data streams and programs to be fitted to the available space,
 - g) recording data comprising one of said selected data streams and programs **with the set recording quality**,
 - h) **checking to determine if there are more unrecorded selected data streams and programs to be recorded, and**
 - h) repeating the steps (e) - (h) for each set of unrecorded data, until all unrecorded selected data streams and programs have been recorded. [Emphasis Added]

It is submitted that Bruls differs from the invention in numerous respects including, but not limited to:

1) Bruls records a single program

Bruls is directed to recording **a single program** on the data carrier at a variable bit rate, adapted in real-time. Bruls discloses a continuous dynamical adjustment of a bit-rate to record **a single program** of a pre-defined duration. Bruls discloses **a single program** of a predefined duration being converted by a compression process (encoded) into digital data with a bit rate influenced for fitting the program in a vacant data space. A remaining part of the vacant space and a remaining part of the duration are determined during the coding process. Bruls further discloses compressing **a single supplied signal** to fill available data space while maintaining substantially consistent construction after reconstruction. In this regard, the compression process is set in dependence on a program complexity of the actual program. Bruls teaches at par. 6, it is an object of the invention to provide means for directly converting **a supplied signal** (i.e., a single signal) into compressed data, so that the total quantity of compressed data of **a program** that has a predefined duration fills as much as possible the available data space while the (subjective) quality during the program is substantially constant after reconstruction by decompression of the compressed data. Bruls further discloses at par. 9, the method according to the invention is characterized in that the compression process is set in dependence on a program complexity of **the actual program**. Further support is found at par. 2 which recites in relevant part, the invention relates to a recording device for recording **a signal** on an information carrier, the signal representing **a program** of a predefined duration.

2) Bruls adapts the bit rate during the recording process

Bruls discloses dynamically varying a bit-rate to record a single program of finite duration. Specifically, Bruls discloses a single program of a predefined duration being converted by a compression process (encoded) into digital data **with a bit rate influenced for fitting the program in a vacant data space**. A remaining part of the vacant space and a

remaining part of the duration are determined during the coding process. A bit-rate in Bruls is attuned to the available data space to achieve a high average picture quality. A target bit-rate to be achieved is calculated from the available data space and the time to be recorded. When the actual bit-rate deviates from a target bit rate, compression settings are adjusted. It should be understood that the process of dynamically adjusting the actual bit rate to match the target bit rate is a continuous dynamic process in Bruls with no regard to what portion of the program is being recorded.

Bruls teaches at par. 5, the data space available for storage on the disc is filled by **attuning the bitrate of the coded video program to the available data space** to achieve a high average picture quality. Bruls further discloses at par. 22, during the recording, the remaining tape length may be computed more accurately by the tape recording device and **the bit rate may be adapted thereto**.

3) *Bruls teaches a fully automated process*

Bruls teaches that encoding device is characterized in that the system controller is arranged for setting the compression unit in dependence on a program complexity of the actual program. See Bruls, par. 7. Bruls further discloses that the encoding device comprises a system controller 25 for controlling the encoding process. The system controller is coupled to the control input 26 of the compression unit 22 and sets the compression unit to a desired bit rate through this control input. See Bruls, par. 22.

Applicants submit that there clearly is no suggestion offered by the prior art of the scenario required in claim 1, as amended, in which multiple sets of data streams are fitted on a data carrier including determining the available recording space on the data carrier for all the unrecorded data streams and setting the recording quality so that all of the unrecorded data streams fit the available space. According to the method of the invention, a receiver can be tuned to several different channels to receive broadcast information in the form of media streams or programs. After a disc has been inserted, the control unit reads the settings of multiple program timers, e.g., a first, second and third program timer, including the start and end time of each program to be recorded on the disc. The control unit subsequently calculates

the total recording length based on these settings, i.e., the total time of the recordings. After that, the control unit determines the available recording space on the disc for all programs, which are unrecorded at this stage. The control unit then sets a recording quality or bit-rate for all the unrecorded programs in the timed recording sequence so as to allow these programs to fit on the available area of the disc. Thereafter, the control unit orders the recording of the first of the programs to be recorded according to the settings in the corresponding program timer with the set quality. The control unit then checks if there are more unrecorded programs in the timed recording sequence. If there are, the control unit determines the available recording space on the disc, after the first recording for the yet unrecorded programs and sets the recording quality once again in order to fit the remaining programs on the disc. In this manner, recording of programs is performed for several programs, while ensuring the best possible quality and fitting the recorded programs to the disc.

It should be appreciated that the method of the invention, as described above, can be differentiated from Bruls in at least the three important aspects, highlighted above. Namely, the method involves a manual setting of program timers. That is, the method is not a fully automated process as taught in Bruls. The method does not adjust the bit rate during the recording of a program, as taught in Bruls. Instead, the method sets the recording quality, records a program and then resets the recording quality upon termination of the recording. The method fits multiple programs on the disc while ensuring the best possible quality and fitting the recorded programs to the disc. Bruls is directed to recording a single program.

Consequently, it is asserted that independent claim 1 is patentable over the cited prior art and claims 2-10 are allowable, at least by virtue of their respective dependence from claim 1.

Independent Claims 11 recites similar subject matter as Independent Claim 1 and therefore contains the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claim 11 is believed to recite statutory subject matter under 35 USC 102(b). Claims 12-21 are allowable, at least by virtue of their respective dependence from claim 11.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-21 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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